

was identified by an expert panel of oncologists. Only direct costs were considered. Costs and outcomes were discounted by an annual rate of 3% (2008). A sensitivity analysis was performed on the risk of relapse reduction by FEC-D using the 95% confidence intervals around the mean of the DFS hazard ratio observed in the clinical trial. **RESULTS:** Women receiving FEC-D have a greater life expectancy than those treated with only FEC (22.83 versus 21.97 years). The average lifetime costs are US\$9976 for FEC-D and US\$7637 for FEC. The incremental cost-effectiveness ratio (ICER) was US\$2,378 in the base case, varying from US\$1,260 to US\$30,791 according to sensitivity analysis. **CONCLUSIONS:** FEC-D is associated with an increase in life expectancy over FEC. The FEC-D regimen in comparison with FEC fell within acceptable ranges of cost-effectiveness. Although there is currently no official cost-effectiveness threshold in Mexico, we observed an acceptable ICER for the utilization of FEC-D at below 3 times the Gross Domestic Product per capita of US\$43,200.

PCN13

COST-EFFECTIVENESS ANALYSIS OF FIRST-LINE TREATMENT FOR METASTATIC RENAL CELL CARCINOMA (MRCC) IN COLOMBIA (ONCOLGROUP STUDY)

Godoy J¹, Cardona AF², Cáceres HA³, Otero JM⁴, Luján M⁵, Lopera D⁶, Pacheco JO⁷, Spath A³, Gis PR⁸

¹Hospital Militar Central, Bogotá DC, Colombia, ²Catalan Institute of Oncology—Hospital Germans Trias i Pujol, Barcelona, Spain, ³Pfizer S.A, Bogotá D.C, Colombia, ⁴Foundation for Clinical and Molecular Cancer Research (FICMAC), Bogotá, NA, Colombia, ⁵Instituto de Cancerología—Clínica Las Américas—Universidad Pontificia Bolivariana, Medellín, NA, Colombia, ⁶Oncólogos de Occidente, Manizales, NA, Colombia, ⁷Hospital de San Jose, Bogotá, Colombia, ⁸Universidad Militar Nueva Granada, Bogotá, Colombia

OBJECTIVES: To evaluate the cost-effectiveness of four interventions (Interferon- α (IFN), Sunitinib, Bevacizumab+IFN, Sorafenib) approved as first-line treatment for mRCC in Colombia. **METHODS:** A Markov model was developed using 6-week cycles from a third-party payer perspective and a 5-year time-line; it also presumed that all the patients (pts) continued with active treatment until progression when it became acceptable to continue with a second-line treatment or best supportive care (BSC). Overall survival (OS) and progression-free survival (PFS) curves of IFN were used as reference framework; they were obtained from a published clinical trial. The hazard ratios (HR) for PFS and OS were estimated for comparing new generation medicaments with IFN. The information about frequency of use and health service cost units consumed in Colombia was taken from a series of 24 pts treated in 4 cities. Service costs were requested from an external consultant and corresponded to the average value billed by the EPSs, calculated from 33 sources of information which were representative of the country's market. The cost of the medicaments was obtained from LCLC. The costs and benefits were discounted annually at 3%. **RESULTS:** Sunitinib treatment was associated with a gain in life years (LY) saved, the Incremental cost analysis indicated a difference of 41.1 million Col\$ (19,773 USD) in the average total cost of treatment when Sunitinib was compared to IFN; in contrast, comparing Sorafenib and Bevacizumab+IFN to Sunitinib demonstrated that the average total cost was less for the Sunitinib by 8.3 (3,991 USD) and 104.2 million Col\$ (50,155 USD), respectively. Additionally, the ICER by life years (LY) gained demonstrated Sunitinib's simple dominance over Sorafenib and the combination of Bevacizumab+IFN, and an average by LY gained of 100.5 million Col\$ (48,362 USD) compared to IFN. **CONCLUSIONS:** Sunitinib is the most cost-effective option as first-line treatment for mRCC pts in Colombia.

PCN14

THE COST AND COST EFFECTIVENESS OF DASATINIB (SPRYCEL) 100 MG THERAPY FOR THE MANAGEMENT OF IMATINIB RESISTANT AND INTOLERANT PATIENTS IN CHRONIC PHASE WITH CHRONIC MYELOID LEUKEMIA (CML) IN MÉXICO

Juarez-García A¹, Uc-Coyoc R¹, Hernandez-Rivera G¹, Rangel S¹, Taylor MJ², Litalien G³, Donato B³

¹Bristol-Myers Squibb, México City, Mexico, ²University of York, York, UK, ³Bristol-Myers Squibb Pharmaceutical, Wallingford, CT, USA

OBJECTIVES: Dasatinib 100 mg is the optimized and recommended initial dose for patients with CML in chronic phase in Mexico. However, little is known on its cost effectiveness when compared with recent treatment alternatives in the market such as nilotinib 800 mg. This study addresses this question under the Mexican health care perspective. **METHODS:** A cost utility life-time Markov model based was used to calculate the incremental cost per Quality Adjusted Life Year (QALY) of the compared therapies. The model follows patients with CML in CP considering the different phases of the disease progression including accelerated and blast health states. Initial best response as defined by the START (SRC/ABL Tyrosine Kinase Inhibition Activity Research Trials) studies determined the pathway the patients will follow within the model. The researchers did not identify any clinical trials that compared dasatinib directly with the comparator, and therefore an indirect comparison was performed. For the indirect comparison all the relevant published efficacy literature was used. Transition probabilities and QALYs were estimated from published international literature. Estimates of the use of health care resources by CML patients in Mexico came from a previously reported study using the Delphi Panel technique. Costs of drugs and other health care treatments were primarily obtained from IMSS published information and discounted at 5% (using the recent published guidelines by the Mexican National Health Council). Sensitivity analysis was performed. **RESULTS:** The economic evaluation revealed that dasatinib was more effective (QALY difference of 0.2) and less costly (-US\$41,329) than nilotinib therapy. These findings were robust to

deterministic sensitivity analysis. **CONCLUSIONS:** In México, Dasatinib is a cost effective therapy for the management of Imatinib resistant patients with CML in the chronic phase. Collection of long term health care efficacy data will help to validate these results.

PCN15

ECONOMIC EVALUATION OF TEMOZOLOMIDE FOR THE TREATMENT OF NEWLY DIAGNOSED GLIOBLASTOMA MULTIFORME IN MEXICO

Rely K¹, Salinas EG², Pierre KA³, Dorantes MEA⁴

¹Network on the Economic Evaluation of Healthcare Programmes and its Applications to Decision Making in Latin American Countries, Mexico, DF, Mexico, ²Hospital Infantil de México Federico Gómez, Mexico, DF, Mexico, ³Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD, USA, ⁴Mexican Ministry of Health, Mexico, DF, Mexico

OBJECTIVES: To analyze the cost-effectiveness of temozolomide in the treatment of newly diagnosed glioblastoma multiforme versus radiotherapy alone from the Mexican health care perspective. **METHODS:** A cost-effectiveness analysis was performed based on a Markov model, with three health states: initial, disease progression and death. This model allowed us to compare the expected outcomes and costs associated with temozolomide compared with radiotherapy alone for a synthetic cohort of patients aged ≥ 55 years over a 5-year period. The model cycles every 6 months and continues until all patients die. The probabilities of transition between health states were obtained from the literature. Costs were expressed in 2008 US dollar. Outcome estimates included the incremental cost-effectiveness ratio (ICER) and cost per life-year (LY) gained. Second-order Monte Carlo simulations were undertaken in which values were randomly drawn from distributions of these parameters. **RESULTS:** The accumulated discounted effect is 1.03 LY per patient receiving temozolomide compared to 0.93 LY for radiotherapy alone. Total lifetime medical cost was US\$31,698 for temozolomide vs. US\$30,715 for radiotherapy alone. The incremental cost-effectiveness of temozolomide was \$US 983 per life year gained. There is a 70% probability that temozolomide is cost-effective at a US\$10,000 per life-year saved threshold and a slightly more than 95% probability of being cost-effective at a US\$18,000 per life-year saved threshold. **CONCLUSIONS:** Results from these analyses suggest that in the Mexican setting, use of temozolomide in place of radiotherapy alone for treatment of glioblastoma multiforme is likely to be cost saving. These conclusions are supported by the use of conservative assumptions and sensitivity analyses.

PCN16

THE COST AND HEALTH CONSEQUENCES OF DIFFERENT BREAST CANCER SCREENING STRATEGIES IN COLOMBIA

Gamboa O, Hernández L, Piñeros M

Instituto Nacional de Cancerología, Bogotá, Colombia

OBJECTIVES: To estimate the cost, clinical implications and cost-effectiveness of different screening strategies for the early detection and prevention of breast cancer in Colombia, that is a growing health problem in Colombia. **METHODS:** The course of women aged 40 and older who are at risk of developing breast cancer and are eligible to be screened for early detection and prevention was modeled using discrete event simulation. Six identical cohorts of 10,000 women were simulated 100 times, to compare 6 different screening strategies. Age distribution of the population was obtained from national data in Colombia, and the risk of developing cancer was based on the 1998–2002 breast cancer incidence rates in Cali, Colombia. Disease progression parameters for women who develop cancer were obtained from published data. Only direct medical costs were considered; costs are reported in 2008 Colombian Pesos (COP) and inflated using the Consumer Price Index (CPI) where current costs were not available. Costs and life years gained were discounted at a 3% rate. Main sensitivity analyses were around the sensitivity of the mammography and the breast clinical exam, the breast cancer incidence rates. **RESULTS:** The most cost-effective strategy for Colombia is an opportunistic screening program with biannual mammography for women between 50 and 69 years and annual breast clinical exam for women between 30 and 69 years, with a cost per life year gained per woman of COP 36,984 and a reduction of 28.68% in the number of cases of cancer that progress to fatal stages of the disease, compared with the do-nothing strategy. **CONCLUSIONS:** Opportunistic screening for breast cancer is expected to improve outcomes and save costs compared to the other 5 strategies. Thus, it will bring better health to Colombian women at risk of developing or suffering from breast cancer at a savings to the Health Authorities.

PCN17

COST EFFECTIVENESS OF IMIQUIMOD IN SUPERFICIAL BASAL CELL CARCINOMA TREATMENT

Karve S¹, Pearce D², Yentzer BA³, Feldman SR⁴, Balkrishnan R⁴

¹Ohio State University, Columbus, OH, USA, ²Wake Forest University School of Medicine, Winston Salem, NC, USA, ³Wake Forest University School of Medicine, Winston-Salem, NC, USA, ⁴Ohio State University College of Pharmacy, Columbus, OH, USA

OBJECTIVES: Due to their commonality, basal cell carcinoma can be an expensive cancer to manage. Imiquimod is an effective treatment for superficial basal cell carcinoma (sBCC) though cost efficacy studies are lacking. This study compared the costs of management approaches for superficial basal cell carcinoma from a third party perspective at 1 and 5 years. **METHODS:** A decision analytic model was developed that compared cost of imiquimod treatment versus commonly used surgical interventions including surgical excision and simple excision, curettage and electrodesiccation (ED & C). A United States third party payer perspective was used for the analysis. Published recurrence rates and Medicare reimbursement rates were used for modeling and sensitivity analyses. **RESULTS:** The expected five-year modeling for imiquimod